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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,727	09/09/2003	Jeyhan Karaoguz	14168US02	2798

23446	7590	11/14/2007
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EXAMINER	
PARK, JUNG H	

ART UNIT	PAPER NUMBER
2619	

MAIL DATE	DELIVERY MODE
11/14/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/658,727

Applicant(s)

KARAOGUZ ET AL.

Examiner

Jung Park

Art Unit

2619

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 September 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Remark

1. This communication is considered fully responsive to the Amendment filed on 09/06/2007.
 - a. An objection to the specification is withdrawn since it has being amended accordingly.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -
(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

3. Claims 1-7, 10-17, and 20-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Lee et al. (US 2004/0039817, "Lee").

Regarding claims 1 and 21, Lee discloses a method [and a system] for providing communication in a multi-band multi-protocol hybrid wired/wireless network, the method comprising:

- determining a protocol (selecting one of 802.11, see 110-114 fig.1 and ¶.29) associated with a communication signal for an access point (signal, see ¶.35);
- allocating a processor compatible with the determined protocol (selecting APs with processor for processing one of 802.11 protocol, see 110-114 fig.1 and ¶.29); and
- processing the communication signal by the allocated processor (next step of 138 fig.1 and ¶.35).

Regarding claim 2, Lee discloses, "further comprising selecting the allocated processor from a pool of available processors for the processing of the communication signal (110-114 fig.1)."

Regarding claim 3, Lee discloses, "wherein the allocating further comprises updating the processor to be capable of the processing of the communication signal (122 fig.1)."

Regarding claim 4, Lee discloses, "wherein the updating further comprises downloading protocol code compatible with the determined protocol to the processor (inherent to access one of 802.11 protocols, see ¶.29)."

Regarding claim 5, Lee discloses, "further comprising storing the compatible protocol code in a memory (inherent to save the protocol code in a not shown memory, see fig.1 and ¶.29)."

Regarding claim 6, Lee discloses, "wherein the downloading further comprises retrieving the compatible protocol code from a portion of the memory (retrieve to configure, see ¶.29)."

Regarding claim 7, Lee discloses, "further comprising associating the determined protocol code with the portion of the memory (store obtained information, see ¶.35)."

Art Unit: 2619

Regarding claim 10, Lee discloses, "wherein the protocol is one of an 802.11a, 802.11b, 802.11g and Bluetooth protocol (§.11)."

Regarding claim 11, it is a claim corresponding to claim 1, except the limitation of "computer-readable medium (inherent to have a medium to operate the flowchart in fig.1 and other algorithms, see ¶.7)" and is therefore rejected for the similar reasons set forth in the rejection of claim 1.

Regarding claims 12-17 and 20, they are claims corresponding to claims 2-7 & 10, respectively and are therefore rejected for the similar reasons set forth in the rejection of the claims.

Regarding claims 22-27, they are claims corresponding to claims 2-7, respectively and are therefore rejected for the similar reasons set forth in the rejection of the claims.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 8, 9, 18, 19, and 28-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee in view of Schmidt (US 7058040, "Schmidt").

Regarding claim 8, Lee lacks what Schmidt discloses, "further comprising tuning at least one transceiver device to at least one of a receive and a transmit frequency associated with the communication signal (col.4, ln.4-16)." Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to apply a transceiver taught by Schmidt into the system of Lee in order to tune a transmit frequency for better/optimum performance.

Regarding claim 9, Lee lacks what Schmidt discloses, "wherein the processor is a digital signal processor (DSP) (153 fig.2A and col.5, ln.51-56)." Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to apply a DSP taught by Schmidt into the system of Lee in order to have embedded functions in the DSP since DSP is a special-purpose CPU used for digital signal processing applications to provide ultra-fast instruction sequences.

Regarding claims 18, 19, 28, 29, and 30, they are claims corresponding to claims 8, 9, 8, 9, & 10, respectively and are therefore rejected for the similar reasons set forth in the rejection of the claims.

Regarding claim 31, Lee discloses, "wherein the at least one integrated transceiver utilizes a single protocol stack for processing the communication signal for the 802.11a, 802.11b, and 802.11g protocols (see ¶.11), but lacks what Schmidt discloses, "Bluetooth protocol (col.1, ln.31)." Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to include Bluetooth

protocol taught by Schmidt into the stack of Lee in order to provide more options clients looking Bluetooth technology which is available at the time of invention.

Response to Arguments

6. Applicant's arguments with respect to claims 1-31 have been considered but are not persuasive.

At page 13, with respect to claim 1, applicant argues that Lee does not disclose the limitations of "allocating a processor compatible with the determined protocol and processing the communication signal by the allocated processor."

In reply, the limitations of "allocating a processor compatible with the determined protocol" read on "the wireless station checks to see if a particular operating mode, i.e., 802.11a, 802.11b, 802.11g, is configured for it ...if the station is configured for a particular mode, the station only searches APs within that mode." That is, after selecting one of the 802.11 family protocols, search APs within that mode and choose the best AP, i.e., a processor. (see 110-114 & 130 fig.1 and ¶.29).

Also, the step of joining AP for further communication signal processing after finding a best AP is equivalent to process the communication signal by the allocated AP, i.e., processor (see 138 fig.1 and ¶.35). Therefore, the examiner respectfully disagrees.

At page 15, with respect to claim 3, Lee argues that Lee fails to disclose, "the allocating comprises updating the processor to be capable of the processing of the communication signal."

In reply, the step of performing Active Scan in the appropriate operating frequencies for choosing the best AP (see 122 & 130) is equivalent to update the

processor to be capable of the processing of the communication signal. Therefore, the examiner respectively disagrees.

At page 16, with respect to claim 4, applicant argues that Lee fails to disclose, "updating comprises downloading protocol code."

In reply, there are three protocols and one of the protocols is selected to join the selected AP. That is, it is inherent to download/access the selected protocol for communicating with the selected AP which is compatible with the selected protocol, otherwise the communication process is not operable. Therefore, the examiner respectively disagrees.

At page 17, with respect to claim 5, applicant argues that Lee fails to disclose, "storing the compatible protocol code in memory."

In reply, it is inherent to store the compatible protocol in a memory in order to know what is the selected protocol for choosing the compatible AP, otherwise there is no way to know which was selected in the previous step for finding compatible AP. Therefore, the examiner respectively disagrees.

At page 18, with respect to claim 6, applicant argues that Lee fails to disclose, "retrieving the compatible protocol code from a portion of the memory."

In reply, it is required to retrieve protocol code if the station is configured for a particular protocol among the 802.11 families. That is, if the wireless station is configured for a particular mode, the station should operate/execute the selected

Art Unit: 2619

protocol for communicating with the selected AP. Therefore, the examiner respectfully disagrees.

At page 18, with respect to claim 7, applicant argues that Lee fail to disclose, "downloading or retrieving the compatible protocol code from a portion of the memory."

In reply, there are three protocols and one of the protocols is selected to join the selected AP. That is, it is inherent to download/access the selected protocol for communicating with the selected AP which is compatible with the selected protocol, otherwise the communication process is not operable. Therefore, the examiner respectfully disagrees.

At page 19, with respect to claim 10, applicant argues that Lee fails to disclose, "the protocol is one of an 802.11a, 802.11b, 802.11g, and Bluetooth protocol."

In reply, applicant claims that one of such protocols. That is, Lee discloses the selecting one of the protocols. That is, if Lee discloses one of such protocols the reference meet the recited claim limitations. Therefore, the examiner respectfully disagrees.

At pages 20-22, with respect to claims 8, 9, 18, 19, and 28-31, applicant argues that Lee and Schmidt fail to disclose all the claim limitations recited in independent claim 1 and Schmidt does not make up for the deficiencies in Lee.

In reply, Lee teaches all the claim limitations as explained in this response and the dependent claims are unpatentable over Lee in view of Schmidt. Therefore, the examiner respectfully disagrees.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jung Park whose telephone number is 571-272-8565. The examiner can normally be reached on Mon-Fri during 6:15-3:45.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached on 571-272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For

Art Unit: 2619

more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JP
Jung Park
Patent Examiner

EDAN . ORGAD
SUPERVISORY PATENT EXAMINER

[Signature] 11/10/07